NATIONAL PARK SERVICE
ENVIROFACTS
3/3/99

National Park Service
Hazardous Waste Management &
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RESPIRATORY PROTECTION

DEFINITIONS

Respirator: A device designed to be worn by a worker in order to provide purified air for breathing.
Hazardous Atmosphere: An atmosphere that can cause adverse health effects upon inhalation.
Immediately Dangerous to Life or Health (IDLH): An atmosphere that poses an immediate threat to life, would cause irreversible adverse health effects, or would impair an individual's ability to escape from a dangerous atmosphere, including oxygen-deficient atmospheres.

APPLICABLE STANDARDS

Federal: Respiratory protection is required by the Occupational Safety and Health Administration (OSHA) as stated in 29 CFR 1910.134, "Respiratory Protection."

State: State respiratory protection regulations may be more stringent than Federal, and they must be reviewed to thoroughly assess your park's compliance status.

THRESHOLD AND APPLICABILITY

Respiratory hazards must be controlled, to the extent possible, through elimination or substitution of the hazard, or engineering controls that contain the hazard. Only when these controls are not feasible, or while they are being instituted, shall respirators be used. Specific conditions when respirators may be required to be worn include the following examples:

- Fire fighting;
- Asbestos abatement;
- Spray painting;
- Water treatment tasks; or
- Entering permit-required confined spaces.

RESPIRATORY PROTECTION PROGRAM

If workers are required to wear respirators, the park must establish a written respiratory protection program that addresses the following elements:

- Designating a qualified program administrator;
- Procedures for selecting respirators;
- Medical evaluations of the worker;
- Fit testing procedures for tight fitting respirators;
- Procedures for proper respirator use, cleaning, repairing, and maintenance;
- Appropriate surveillance of work conditions while respirators are being worn;
- Procedures to ensure adequate air quality, quantity, and flow of breathing air for atmosphere-supplying respirators;
- Procedures for regularly evaluating the effectiveness of the program; and
- For IDLH atmospheres (including fighting interior fires), a minimum of two workers must enter together and remain in continual communication, two attendants must remain outside the IDLH area, attendants must be equipped and capable of monitoring the work being performed, and rescuing the workers.

RESPIRATORY HAZARD EVALUATION

In order to determine if a respirator is needed, and to select the proper type of respirator, the specific respiratory hazard at the work site must be evaluated. This evaluation must include identifying the contaminant's chemical state and physical form, and an estimate of worker's exposure to the hazard(s). Parks may need to have unusual conditions evaluated by an industrial hygienist to be certain. If the park cannot identify or reasonably estimate the worker exposure, the atmosphere must be considered to be IDLH.

RESPIRATOR SELECTION

Respirators must be NIOSH certified, and adequate to protect workers from the respiratory hazards that the park identified and evaluated.

- For atmospheres that are not IDLH, the respirator shall be appropriate for the chemical state and physical form of the contaminant.
- Parks shall provide an atmosphere-supplying respirator, or an air-purifying respirator.
- Filter cartridges for air-purifying respirators must be equipped with an end-of-service-life indicator certified by NIOSH for the contaminant, or the park must establish a filter change schedule.
- For IDLH atmospheres, parks are to use full facepiece pressure demand self contained breathing apparatus with a minimum service life of thirty minutes, or a combination full facepiece pressure demand supplied-air respirator (SAR) with auxiliary self-contained air supply.
- Respirators provided only for escape from IDLH atmospheres shall be NIOSH-certified for escape from the atmosphere in which they will be used.

TRAINING

All respirator users are required to complete training, undergo a medical evaluation, and pass a fit test. Training includes the following:

- Employer identification of the respiratory hazards to which they may be potentially exposed;
- Proper respirator use;
- Inspecting the respirator for proper function;
- How to don the respirator and adjust straps for proper fit;
- Positive pressure fit check;
- Negative pressure fit check;
- Proper maintenance and cleaning; and
- When to replace filter cartridges.

Training is to be documented, including a list of attendees, the date of training, and the content of training. Training is to be conducted by competent individuals in the work area who are familiar with the hazardous materials used, or safety representative.

MEDICAL EVALUATION

The physical ability of any worker to use a respirator and perform their duties must be determined by a licensed health care provider, and must be completed before the worker is fit tested, or performs work while wearing a respirator. Information regarding the type of respiratory hazards, respirator, and work, must be provided to the medical evaluator.

FIT TESTING

After successfully completing training, and medical evaluation, all workers are required to successfully pass an OSHA-accepted qualitative or quantitative fit test, based on the type of respirator to be used. Retesting is necessary when difference respirators are used or there is reason to believe the seal is not tight (e.g., weight change).

RECORDKEEPING

The following records are required to be maintained for each respirator wearer: (1) documentation of training; (2) health evaluation signed by a licensed health care provider; and (3) fit testing, that documents type of respirator and cartridge tested, wearer identification, date, test method, identification of tester, and indication of pass/fail.

ENVIROFACT X-REFERENCES

- Hazard Communication (HAZCOM)
- Confined Space Management
- Spill Prevention Planning
- Asbestos Waste Management
- Construction/Building Demolition Waste Management

RESPIRATORY PROTECTION REGULATORY APPLICABILITY CHECKLIST

Checklist Item	Response
1. Survey all tasks and conditions encountered at your park, and list those that potentially involve respiratory hazards.	
2. Assign a program administrator and establish a written respiratory protection program.	
3. Evaluate all conditions involving respiratory hazards.	
4. List the identity, chemical state, and physical form (solid, gas, liquid, dust, vapor, fume), of all respiratory hazards.	
5. Determine the potential worker exposure in each area that contains a respiratory hazard.	
6. Ensure workers are successfully trained and complete a medical evaluation before being fit tested.	
7. Based on the type of respirator to be worn, ensure all workers are quantitatively or qualitatively fit tested.	
8. Ensure a method is established to monitor work for a change in work conditions or degree of worker exposure or stress that may adversely effect respiratory effectiveness.	
9. Verify that the program administrator periodically reviews (recommended annually) the effectiveness of the respiratory protection program.	
10. Ensure that training, medical evaluations, and fit test records are appropriately maintained.	